Syllabus: BIOS-4100 Exercise Physiology
Spring 2027

Instructor Information

Instructor	**Email**
Dr. Ed Balog	ed.balog@ap.gatech.edu
Biological Sciences	

General Information

Prerequisite: BIOS 3753

Learning Objectives

Upon completion of the class, students will:

- Understand and be able to describe the acute and chronic effects of different types of exercise on the structure and function of the human body.
- Be able to explain the physiological basis of conditioning and training methods used to enhance human health and physical performance.
- Be familiar with laboratory instruments and procedures to measure the physiological responses to exercise.

Course Materials

Required Course Text

"Exercise Physiology", 2026 by Powers, Howley & Quindry
Publisher: McGraw-Hill ISBN: 978-1-266-53271-0

Course Website and Other Classroom Management Tools

All course assignments, readings and grades will be posted and submitted via Canvas.

Course Requirements & Grading

Description of Graded Components:

Midterm Exam (30% of final grade): The midterm exam taken in class. The exam will be a mixture of multiple choice and short answer questions. Calculations may be included.

Final Exam (30% of final grade): The final exam is during the exam period set by the University for classes taught during our normal class time. The exam is not cumulative, it will include only material covered since the mid-term exam.

Quizzes (15% of final grade): Two quizzes will be given, one on February 6 and the second on April 1. Quizzes are intended to be practice for the exam, require approximately 30 and will be a format similar to the exams.

Lab Reports & Projects (25% of final grade): There will be 4 lab reports and 2 projects

throughout the semester. Data for lab reports will either be provided or obtained during demonstration labs, a diet recall, fact-checking a generative artificial intelligence chatbot and a research review.

1. Ergometry and responses to exercise (2.5% out of 25%)
2. Energy Expenditure (2.5% out of 25%)
3. Estimate of VO_2 max (2.5% out of 25%)
4. ChatGPT Fact-check report (5% out of 25%)
5. Nutritional analysis (2.5% out of 25%)
6. Research review (10% out of 25%; Oral 2.5%, Written report 7.5%)

Extra Credit Opportunities: Extra credit is typically not given in this class. If any opportunities for extra credit should arise, it will be announced in class as appropriate.

Grading Scale

Every effort will be taken to provide you with timely and thorough feedback on your performance and if you have any questions, please ask. Final average grades will be rounded to the nearest whole percentage point. Curving grades is rare and should not be expected. Your final grade will be assigned as a letter grade according to the following scale:

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	0-59%

Course Expectations & Guidelines

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code, please visit http://www.catalog.gatech.edu/policies/honor-code/ or http://www.catalog.gatech.edu/rules/18/.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will automatically be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for any violations uncovered.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404)894-2563 or http://disabilityservices.gatech.edu/, **as soon as possible** to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail us as soon as possible in order to set up a time to discuss your learning needs.

Attendance and/or Participation

This is a fast-paced and intensive course. Missing any class will put you at a serious disadvantage to complete the course requirements. If you are absent from class, you are still responsible for thework assigned for that day, as well as any information given out that day. We encourage you to participate in class. If you have a question, the chances are good that someone else is wondering the same thing.

Missed Exams, Extensions & Late Assignments

Make up quizzes, labs and exams will be considered only in the case of an emergency (documentation required) or if prior arrangements have been made.

If you miss an assignment for any reason, you will receive a grade of 0 (zero) on that assignment. You may petition to take a make-up within 24 h of the start of the missed assignment. Your petition must be submitted in writing and must include documentation of a legitimate reason for missing the assignment. You may submit your petition before the assignment if you know of your scheduling conflict in advance. Examples of legitimate reasons to miss an assignment include a documented illness, illness or death in your immediate family, and participation in official university activities. If your petition is approved, you will be allowed to take a **make-up assignment within 7 days** of your return to class. It is the **student's responsibility to schedule the make-up assignment**. If you do not take the make-up assignment within 7 days of your return, your grade for the assignment will remain a 0 (zero).

If you take the assignment, you cannot retroactively petition it. If you feel ill, slept through your alarm or have something come up right before the assignment, it's better not to take it and let me know as soon as possible.

Late lab reports will be docked 1 letter grade for each day they are late. No lab will be accepted if over 3 days late.

Student-Faculty Expectations Agreement

At Georgia Tech we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See http://www.catalog.gatech.edu/rules/22/ for an articulation of some basic expectations that you can have of us and that we will have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, we encourage you to remain committed to the ideals of Georgia Tech while in this class.

Additional Course Policies

Use of Generative AI (Artificial Intelligence) for Class Work

The use of AI-based assistance such as ChatGPT, will be considered the same as a collaboration with another person. You are encouraged to discuss your ideas and work with other people as well as AI-assistants. However, all work you submit must be your own. Never include in a submitted assignment anything that was not written directly by you without giving the proper citations.

Institute-Approved Absences

As per Georgia Tech policy, you are permitted to be absent from class to participate in athletic events, official field trips, and religious observances. For planning purposes, please provide us with **written notice of your upcoming absence at least two weeks before the event, and ideally within the first two weeks of class**. When we receive this notice, we will discuss opportunities with you to make up any missed work in your absence. Please see http://catalog.gatech.edu/rules/4/ for more information about receiving official notice from the Registrar about the nature and timing of your upcoming Institute-approved absence.

Freedom of Expression and Guidelines for Discussion

We respect your right to freedom of speech and peaceful assembly. We are also committed to maintaining an orderly learning environment for all students and ensuring that all facilities are used in a way that facilitates teaching, learning, and research. Therefore, we encourage you to voice your opinions respectfully, as long as they are related to the content of this class and as long as doing so does not infringe unduly on the rights of others.

Re-grading and Re-submission
We try to be fair in our grading and generally try to give as much partial credit as possible. As such, please consider carefully any requests you have for regrading other than obvious errors in calculating your grade. Requests for regrading of an exam or homework may be submitted in writing via email to Dr. Balog within one week of the day the grades are given back to the class (regardless of whether or not you attend class that day). You must justify in writing the technical basis for the regrade. If the regrading request is accepted, your entire homework assignment or exam may be regraded. Note that your grade may potentially decrease upon regrading, and you should not assume that your gradewill always go up after regrading.

Statement of Intent for Inclusivity

As a member of the Georgia Tech community, we are committed to creating a learning environment in which all of our students feel safe and included. Because we are individuals with varying needs, we rely on your feedback to achieve this goal. To that end, we invite youto enter into dialogue with us about the things we can stop, start, and continue doing to makeour classroom an environment in which you feel safe to participate in learning.